

# **plantuml in orgmode**

drawing in plain text

Kimi Ma, July 22, 2021

# Outline

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# Introduction

# PlantUML in Orgmode

This file demonstrates:

- How to draw in UML with plantuml in orgmode
- And create PDF slides from orgmode



# Emacs and Orgmode version

Firstly, let's check Emacs<sup>1</sup> and Orgmode<sup>2</sup> version:

```
(concat (emacs-version)
        "\nOrgmode " (org-version))
```

GNU Emacs 28.0.50 (build 7, x86\_64-w64-mingw32)  
of 2021-07-15  
Orgmode 9.4.4

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<sup>1</sup><https://www.gnu.org/software/emacs>

<sup>2</sup><https://orgmode.org>



# Emacs Configuration

You may need to use my emacs config:

```
# backup existing emacs config
cd ~ && mv .emacs .emacs-backup && mv .emacs.d .emacs.d-backup
# clone this config
git clone https://github.com/kimim/kimim-emacs
# copy default .emacs to ~
cp kimim-emacs/.emacs ~
```



Download plantuml.jar<sup>3</sup>, and set jar-path:

```
(require 'url-handlers)
(require 'ob-plantuml)
(url-copy-file "https://nchc.dl.sourceforge.net/project/plantuml/plantuml.jar"
              "./plantuml.jar" t)
(setq org-plantuml-jar-path "./plantuml.jar")
```

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<sup>3</sup><https://plantuml.com>



# TeXLive and Beamer Theme

Install TeXLive<sup>4</sup> to <texlive-path> and clone beamertheme-kimim<sup>5</sup>, and update T<sub>E</sub>X cache:

```
git clone https://github.com/kimim/beamertheme-kimim \  
  <texlive-path>/texmf-local/tex/latex/beamertheme-kimim  
mktexlsr
```

---

<sup>4</sup><http://tug.org/texlive>

<sup>5</sup><https://github.com/kimim/beamertheme-kimim>





# Inkscape

Install Inkscape<sup>6</sup> to convert SVG image to PDF.  
This is inkscape version on my Windows 10:

```
inkscape --version
```

Inkscape 1.0.2-2 (e86c870879, 2021-01-15)

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<sup>6</sup><https://inkscape.org>

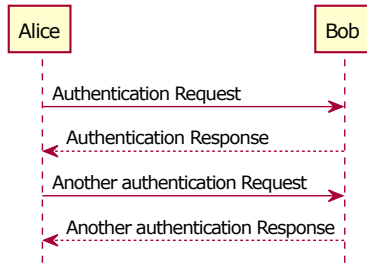


## PlantUML Diagrams

# Sequence Diagram

Let's draw a simple sequence diagram with this plantuml code:

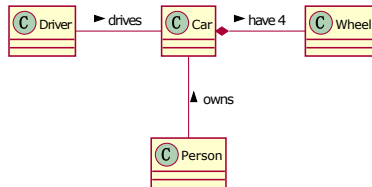
```
@startuml
hide footbox
hide unlinked
Alice -> Bob: Authentication Request
Bob --> Alice: Authentication Response
Alice -> Bob: Another authentication Request
Alice <-- Bob: Another authentication Response
@enduml
```



# Class Diagram

## A simple class diagram

```
@startuml
class Car
Driver - Car : drives >
Car *- Wheel : have 4 >
Car -- Person : < owns
@enduml
```



## Conclusion

# Key Takeaways

- Emacs is a long lasting, and wonderful text editor
- Orgmode is an awesome plain text format
- $\text{\LaTeX}$  and Beamer is great typesetting tool
- Thus, drawing plantuml diagram with these tools is cool!



